National Scenic Byways

Diversity Contributes to Success

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National Scenic Byways have both similar and diverse traits. Similarities include common intrinsic qualities, completed corridor management plans, and substantial efforts toward program goals of preserving and promoting their intrinsic qualities. Variations include corridor characteristics, land management and ownership patterns, and the maturity and capacity of byway organizations. Despite differences, most National Scenic Byways achieve a high degree of productivity as measured by planning activity, program development, and facility improvements. It is argued that the degree of diversity accommodated in the national program is a contributing factor to byway success.

Contextual and operating characteristics of National Scenic Byways (NSB) are highly variable. Some corridors are short, others are long. One byway may have a single intrinsic quality resource that warranted recognition; others may have several. A few byways have been in existence for decades. Most have been in place for only a few years. A byway in one location may have a limited set of partners focusing on a narrow set of objectives and be quite successful. A byway in another location and context may require dozens of partners to ensure its success. National program guidelines did not necessarily design for this variability, but the program does accommodate it. This paper takes the position that the program tolerance for diversity of byways is healthy. It further argues that diversity is a major contributor to byway success.

OVERVIEW OF NSB

NSB Program Purpose

The purpose of the NSB program is to create a distinctive collection of American roads, their stories, and treasured places (*1*). Roads are designated because of their unique intrinsic qualities. National program guidance was initiated under the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and completed under the Transportation Equity Act for the 21st Century in 1998. National policy and program criteria are laid out clearly, but it is strictly a volunteer- and community-based response that is the driver. The national program provides incentives (recognition, funding support), not mandates. There are supporting national and state roles in implementing the program, but the central features are the strategies, plans, and projects developed at the community or byway level. The corridor planning model requires 14 elements, but the planning process emphasizes flexibility, balance among goals, collaboration with stakeholders, and strong public involvement (*1*).

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Transportation Research Record: Journal of the Transportation Research Board, No. 1880, TRB, National Research Council, Washington, D.C., 2004, pp. 174–180.

More Than Scenic Roads

It is important to distinguish between scenic roads that have been in existence for some time and the more recent policy and program efforts represented in National Scenic Byways, currently referred to as the collection of America's byways. Scenic roads have been recognized since the turn of the century, and several states have had scenic road programs in place for decades (*2*). For the most part those earlier designations focused exclusively on scenic qualities and tended not to include strong planning and management components. National Scenic Byways are different.

First, all national byways must contain one or more intrinsic quality resources. Second, they must also have completed a corridor management plan for promoting and preserving their resources. And third, they must demonstrate organizational capacity to carry out those plans. Currently, there are 96 National Scenic Byways (Figure 1) that have satisfied those requirements.

National and State Program Administration

At the national level the program provides three functions: national byway recognition, grants awards, and technical assistance. Staff in the Federal Highway Administration's NSB office oversee the first two functions. Under special contract, the America's Byways Resource Center in Duluth, Minnesota, provides technical assistance in the form of training, workshops, research, publications, and conferences. Website (byways.org) support is provided under contract by staff at Utah State University. Supporting these efforts at the national level are important partners such as public lands agencies including the U.S. Forest Service, National Park Service, Bureau of Land Management, and U.S. Fish and Wildlife; special interest groups including Scenic America, National Trust for Historic Preservation, Travel Industry of America, Automobile Association of America, and Recreation Coalition; as well as other groups and agencies concerned with transportation, tourism, recreation, and resource conservation.

The functions above, and similar partners, are mirrored in byway offices at the state level. Most of those offices are housed in state departments of transportation. Forty-nine states have designated scenic byway programs, and 39 states contain one or more National Scenic Byways. Although most state programs were developed after the national one, Oregon, Washington, Vermont, California, Colorado,

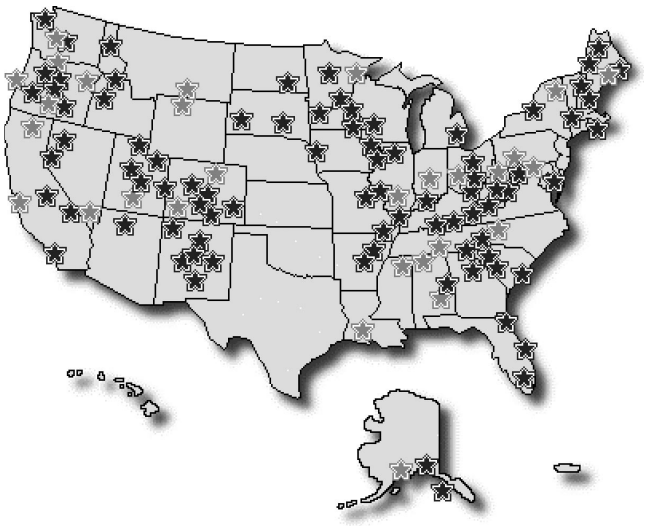

FIGURE 1 Map of America's byways (*1*).

Maine, Minnesota, North Carolina, New York, and Utah had scenic road programs before ISTEA. Including NSB and public lands byways, there are 635 state-designated byways (*1*).

COMMON FEATURES OF NSB

Significant Intrinsic Qualities

Eligibility for recognition includes six intrinsic qualities: scenic, recreation, natural, historic, cultural, and archaeological (Figure 2). To be designated a National Scenic Byway, a road must have at least one of the six resources, and its significance must be recognized throughout a multistate region. To receive All American Road recognition, the road must possess multiple intrinsic qualities that are nationally significant and contain one-of-a-kind features that do not exist elsewhere (*1*).

Corridor Management Plan

A required corridor management plan with 14 elements (Figure 3) ensures uniformity and consistency across important management considerations. At the same time, each local byway is encouraged to develop its own set of strategies and schedules to match its community context and available resources. This provides flexibility in byway management and goal achievement. Technical support documents, funded by FHWA, provide planning guidance on intrinsic qualities and documentation of the 14 required elements (*4, 5*).

Byway Goals and Expected Outcomes

The dual goals of the byway program are to preserve and promote the byways' resources. In achieving these goals, byways produce contributions to economic development through expanded tourism. They also advance resource preservation through selected stewardships programs. In an expanded sense byways provide five general benefits to their communities and corridors.

Economic Development

Byways offer enhanced promotional opportunity by assembling a set of attractions and experiences along a travel corridor.

Community Services and Amenities

Byways help to improve community and traveler facilities such as rest areas, gateway centers, interpretive sites, vista pullouts, and way-finding signage.

Archeological: Characteristics of the scenic byway corridor that are physical evidence of historic or prehistoric life that are visible and capable of being inventoried and interpreted.

Cultural: Evidence and expressions of the customs or traditions of a distinct group of people. Cultural features include, but are not limited to, crafts, music, dance, rituals, festivals, speech, food, special events, and vernacular architecture that are currently practiced.

Historic: Encompasses legacies of the past that are distinctly associated with physical elements of the landscape, whether natural or manmade, that are of such historic significance that they educate the viewer and stir an appreciation of the past.

Natural: Applies to those features in the visual environment that are in a relatively undisturbed state. These features predate the arrival of human populations and may include geological formations, fossils, landforms, water bodies, vegetation, and wildlife.

Recreational: Involves outdoor recreational activities directly associated with, and dependent upon, the natural and cultural elements of the corridor's landscape.

Scenic: The heightened visual experience derived from the view of natural and manmade elements of the visual environment.

FIGURE 2 Intrinsic qualities (*3*).

Location
Corridor Map (s) showing boundaries, locations of intrinsic qualities, and different land uses.
Physical Description
General Review of Road (Safety)
Highway Design & Maintenance Standards
Intrinsic Qualities
Assessment: Evaluate the intrinsic qualities as to which are of local, regional, or national importance, and identify their context within the area.
Management Strategy: Show how the intrinsic qualities will be managed and identify the tools that will be used to accomplish this effort.
Interpretation: Describe plans in place or planned that will interpret the significant resources of the byway.
Visitor Needs & Expectations
Visitor Experience Plan: Discuss efforts to minimize intrusions on visitor experience and identify plans to enhance that experience.
Development Plan: Describe how existing development might be enhanced and new development accommodated while still preserving the intrinsic qualities of the corridor.
Commerce Plan: Evaluate how byway will accommodate commercial traffic, access to businesses, and travel service for visitors, while ensuring safety and accommodating non-vehicular modes.
Sign Plan: Demonstrate how the byway will ensure and provide essential way finding signage supportive to the visitor experience.
Outdoor Advertising Control: Demonstrate that all local, state, and federal laws on the control of outdoor advertising are being met.
Marketing & Promotion
Marketing: Describe how the byway will be marketed and publicized.
Promotion: Prepare a narrative of how the byway will be promoted, interpreted, and marketed in order to attract travelers.
Multi-Lingual Information (AAR): Identify multilingual needs and plans for international visitor.
Tourism Plan (AAR): Describe how increased tourism will be accommodated.
People Involvement and Responsibility
Public Participation: Discuss how public participation will be achieved in development and implementation of corridor management objectives.
Responsibility Schedule: List all actions including agency, group, and individual responsibilities for carrying out the plan.

NOTE: AAR = All American Road.

FIGURE 3 Corridor management plan elements (*4*).

Visitor Management

Byways help to coordinate the distribution of visitors throughout the corridor and help manage potential visitor impacts.

Roadway Enhancements

Byways work to improve the road's character, scenic quality, and safety.

Resource Stewardship

Byways offer an effective way to cultivate a greater recognition and appreciation for the region's historic, natural, and cultural resources. Greater recognition and appreciation lead to responsible stewardship efforts.

BYWAY DIVERSITY

While byways share the common program elements above, they are each unique. Variable patterns are many but most often include corridor dimensions, land management and ownership, and threats to resources.

Corridor Characteristics

There are 24,548 designated miles in the NSB system. National Byways are located coast to coast and from Florida to Alaska. Eight thousand of those miles are on water (Alaska Marine Byway). Of the land-based mileage, the smallest corridor length is 4.5 mi (Las Vegas, Nevada, Strip), and the longest is 1,707 mi (Wisconsin's Great River Road). The average byway corridor length is 140 mi. Ten byways exceed 300 mi in length (1). Long byways traverse additional communities, counties, and even states. Long corridors can represent a rich collection of resources and can help develop regional approaches to promotion and stewardship. On the other hand, longer routes, with variable land ownership patterns and multiple jurisdictions, can add greater complexity to planning efforts.

Land Management and Ownership

For example, land ownership patterns along a western state byway may be 50% to 70% public lands with resource management shared by several agencies. In other parts of the country byways may be entirely on private lands with and without local land-use controls. Table 1 identifies the major types of land management and ownership for National Scenic Byways. On average, each byway has four different land management groups, and ownership is approximately 40% private land and 60% public land.

TABLE 1 Land Management and Tenure Along National Scenic Byways

Type	NSB Byways
County Zoning	62%
City Zoning	58%
No Zoning	40%
Local Parks	44%
State Forests	26%
State Parks	51%
National Forest	39%
National Park Service	39%
Bureau of Land Management	16%
Private Land	42%
Public Land	58%
Local (city/county)	17%
State	22%
Federal	61%

SOURCE: America's Byways Resource Center, Integrity Project Survey (N = 85), unpublished, 2003.

Threats

Byways face a variety of threats to their resources and organizations. Table 2 identifies some of the major threats represented in a recent national survey. Not surprisingly, related land development issues pose the most consistent threat to byways. For some byways, unmanaged development can impact scenic and natural resources. For others, development or redevelopment can threaten historic and cultural resources. Within public land byways, natural disturbances such as fire, invasive species, and disease can pose the greatest threats to resource integrity. For byway organizations, reductions in funding, changes in leadership, and volunteer burnout can present threats. It should be noted that almost half (48%) of the byways surveyed did not identify any specific threats.

CONTRIBUTIONS OF BYWAY DIVERSITY

This paper argues that three interrelated patterns can be viewed as contributing to byway strengths and success. These include diversity of intrinsic qualities, diversity of organization type, and diversity of partnerships.

TABLE 2 Perceived Threats to Byway Resources

Type	% of Byways Reporting
Land Use/ Development	29
Visitor Impacts	15
Decreased Funding	09
Road & Traffic	11
Natural Disturbance	08
Organizational Change	05
Incompatible Signs	04
Other (multiple)	19

NOTE: Only 52% of survey respondents indicated threats to byways.
SOURCE: America's Byways Resource Center, Integrity Project Survey (N = 85), unpublished, 2003.

Resource Diversity

Intrinsic qualities are the central assets of byways. Resource inventories of intrinsic qualities and their significance are included in plan documentation and summarized in national listings for byways on the website (*1*). Some byways list only two intrinsic qualities, but several identify all six. On average, each National Scenic Byway contains five intrinsic quality resources. Table 3 identifies the percentage of resource frequency for the collection of National Scenic Byways.

Providing recognition for a diverse set of intrinsic qualities has important benefits. First, by identifying and promoting multiple resources, the richer collection provides a stronger set of attractions for visitors. Second, in the planning and management of diverse resources, there is stronger potential to attract an equally diverse set of knowledgeable and motivated partners. And third, weaving together and interpreting the way these resources interrelate result in a more powerful and compelling story of place that produces greater awareness and appreciation on the part of residents. It can also produce a richer experience for visitors.

Organizational Diversity

Byway organizations are highly variable. In one location the byway group may comprise a dozen citizen volunteers who meet monthly to oversee the implementation of three to four projects in their improvement plan. In another corridor the byway group may be coordinated by dedicated staff from a public lands agency with a substantial operating and capital budget and dozens of ongoing projects. In the latter, board members or major stakeholders may interact weekly, if not daily, as they oversee the implementation of byway improvement projects.

Most byways begin with efforts by an informal group of citizen volunteers. These groups are sometimes coupled with "volunteered time" by public or private agency staff for fiscal, administrative, and technical assistance. Table 4 identifies a range of organizational types. Table 5 presents a profile of the different lead agencies in byway organizations. Regardless of type or lead role, most byway organizations include a local byway group as a component. In public land byways in which a governmental agency may have provided the initial impetus for designation, community support groups are developed to ensure byway connections to the community.

Some byways evolve to a point of having dedicated professional staff. Even with dedicated staff there is the continuing need for community volunteers and active "partnerships" with multiple public and private organizations to accomplish byway objectives. These partnerships form the basis of a social network that adds strength to byway organizations.

As suggested above, some byway organizations can be simple. Others are complex. The diversity reflects the variable institutional,

TABLE 3 Intrinsic Qualities in NSB Corridors (*1*)

Intrinsic Quality	NSB Byways with Resource
Historic	97%
Scenic	96%
Recreational	95%
Natural	91%
Cultural	81%
Archeological	60%

NOTE: 91% of NSB have completed IQ Inventories.

TABLE 4 Types of Byway Organizations (*6*)

Type	% of Byways
Citizen Group	28
Nonprofit	36
Interagency Agreement	16
Governmental Agency	22
Other	14

community, economic, and resource context of each byway. Byways are formed on the basis of their different contextual setting. There is no single best model. Byway organizations also evolve and change over time. Sometimes their organization expands, sometimes it contracts. As needs change, the organization transitions to meet those needs (*6*). In reality, byway changes are not quite as fluid as implied here, but there is organizational flexibility to accommodate changing needs.

Partnership Diversity

A key factor in the success of byways is partners. The major "lesson learned" in assessing best practice of byways at both the national and state level is that byways' achievement and productivity are strongly related to the strength and variety of its partnerships (*6–8*). It is not uncommon to examine byway plans and grant requests that list dozens of partners as contributors and sponsors. On average, byways identify five major partners and four secondary partners who are involved in their planning and development efforts [America's Byways Resource Center, Integrity Project Survey ($N = 85$), unpublished, 2003].

Although the focus of this paper is on the individual National Scenic Byway, it should be noted that substantial partnership diversity exists at the state and national program level as well. For example, three excellent national publications that serve as major resources for byways were produced through partnership efforts (*5, 7, 9*). Two collections of case materials also provide examples of partnerships at the state level (*6, 8*).

Diverse resources attract a diverse set of partners, and sometimes for different reasons. For example, a byway project focused on developing a birding trail map may attract multiple state and federal resource agencies, as well as nonprofits, with interest in "watchable wildlife." At the same time the project may also attract equal support from Chambers of Commerce and the tourist service industries that recognize the economic importance of ecotourism. This shared-interest scenario is played out for cultural, historical, and recreational resources as well. Diversity of resources expands partnership potential.

The knowledge of resources derived initially from the inventory, and enriched through interpretation, produces a greater community awareness and appreciation. Increased visibility typically follows that awareness. The increased visibility can bring an even more diverse set of partners to the table to plan to promote and preserve those assets. This awareness and appreciation process is cyclic and, with each iteration, resource knowledge, awareness, and participation can increase.

MEASURING SUCCESS

There are alternative ways to measure byway success. This review focuses on three: planning activity, grants, and projects.

Planning Activity

Byways develop and use a variety of plans. The corridor management plan is required but is often followed by specialized plans such as those focusing on interpretation or marketing. Table 6 identifies NSB planning efforts. Sometimes when plans are required, the organization develops them but then they are put on a shelf. As noted in the table, byways do use their plans and update them periodically. According to survey respondents they use them to guide the organization's efforts, prioritize improvements, and support grant requests [America's Byways Resource Center, Integrity Project Survey ($N = 85$), unpublished, 2003].

Projects

Although byways are guided by plans, they are motivated by actions. In interviews with byway leaders, and in response to survey questions about byway accomplishment, completing improvement projects ranked very high [America's Byways Resource Center, Integrity Project Survey ($N = 85$), unpublished, 2003]. On average, each byway has five major projects under development at any one time. Perhaps for professional staff in transportation organizations, that number of projects may appear modest. Remember, most byways are volunteer organizations without dedicated staff to coordinate and manage the projects; for them, it is a sizable effort. Table 7 provides an overview of the types of project outcomes produced by byway efforts. The reader will note somewhat of an equal distribution between alternative improvements for visitors.

TABLE 5 Lead Role in Byways (*6*)

Type	Frequency
Nonprofit or Citizen Group	36
Tourism/Chamber/CVB	22
Public Lands Agency	20
DOT	10
Regional Planning	7
City/County	7
University	4
Tribal	2
Other	6
Total	114

TABLE 6 Byway Planning Efforts

Plan Type	% of NSB
Corridor Management Plans (CMPs)	97
Interpretive Plans/Elements	77
Improvement Plans	63
Other Plans (Beyond CMPs)	69
Plan Utilization	
Reviewed annually	48
Updated annually	20

SOURCE: America's Byways Resource Center, Integrity Project Survey ($N = 85$), unpublished, 2003.

TABLE 7 Byway Program and Improvement Efforts

Byway Improvements	% of NSB
Interpretative Programs/Facilities (average # = 5)	
— Brochures-booklets	76
— Roadside exhibits	72
— Kiosks	67
— Interpretive centers	62
— Museums	53
— Youth programs	41
— Audio tapes	28
—	
Way finding	
Route marker	91
Byway maps	55
Marketing	
— Brochures	83
— Itineraries	24
— Websites	62
Recreational Facilities	74

SOURCE: America's Byways Resource Center, Integrity Project Survey (N = 85), unpublished, 2003.

NSB Grants

The NSB grants program is one of the smallest categorical funds in the U.S. Department of Transportation budget, yet in its first 12 years it has delivered important support for byway improvements. It has awarded more than $170 million, which funded more than 1,400 projects around the country (*1*). Competition for these grant funds in some states can be fierce but healthy. Figure 4 shows the relative distribution of grant monies by category types for 1998 to 2002. Construction of byway facilities is the largest category. The distribution also identifies strong support for planning, interpretation, and marketing. A review of the most recent grant cycle (2003) requests shows a modest decline in marketing requests and a modest increase in the resource stewardship category (*1*). Two other observations about the grants program are worth noting. One is the degree of leveraging achieved. A 20% match is required for NSB grants, but it is not uncommon to see upward of a 50% match in many byway grant applications. One example of leveraging is a project by the San Juan Skyway (*6*). Its $36,000 planning grant successfully leveraged $5 million for land acquisition and historic structure rehabilitation in a former mining area of the corridor. Grant dollars contribute indirectly to long-term economics in tourism. They also provide direct and immediate economic benefits to local communities. It is typically a point of pride and commitment that those grant project dollars be directed to local contractors and service providers.

Ingredients of Successful Best Practice

In 2001, and again in 2003, America's Byways Resource Center partnered with AASHTO officials to sponsor an awards program for best practices of scenic byways. The 2001 program attracted more than 40 applications from 29 states. The publication of case studies (*7*) featured the award winners and nominees who identified important

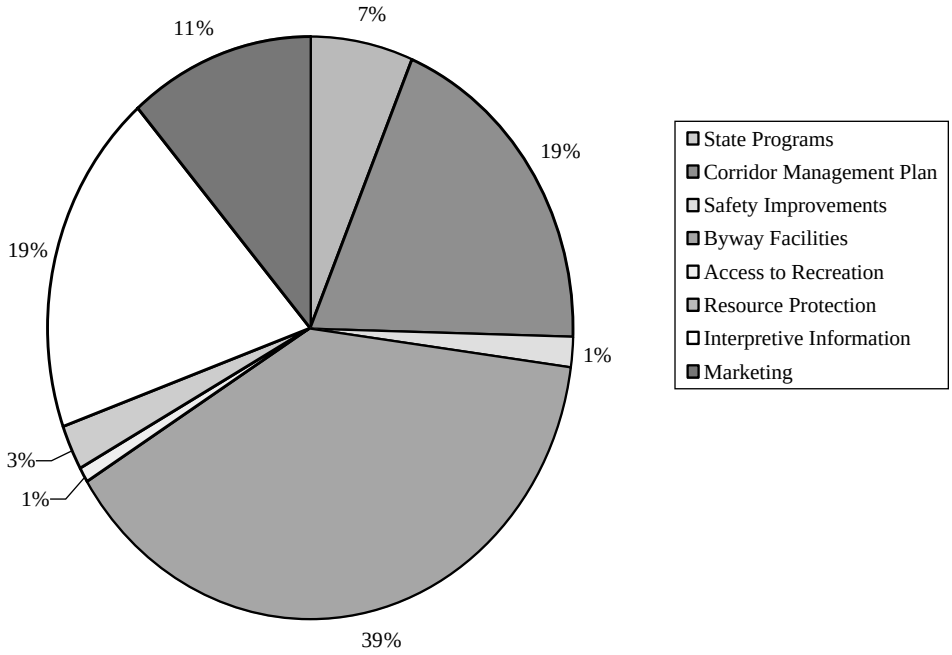

FIGURE 4 NSB grant profile: 1998–2002 (*1*).

lessons learned from project planning. The list of lessons included the following:

- Construct a compelling story and vision from the resource inventory,
- Create an inclusive framework early in the planning process,
- Develop incentives for being at the table,
- Exercise creativity in marketing and visualization,
- Maintain a strong focus on enhancements and interpretation,
- Balance competing goals of promotion and preservation,
- Give equal attention to big-picture and design details, and
- Enlist partners who are motivated by a passion for the resources.

A similar set of lessons learned was provided in a recent assessment of byway practice for Colorado's Scenic and Historic Byway Program (*8*). In particular, the study documented the importance of a strong vision, partnerships, open process, and balancing goals.

The lessons above document some of the operational attributes of byway success. This paper's claim, while related, is more simple: without a diversity of resources that attract a diversity of partners, successful attributes such as those above would have difficulty being realized. And it is important to note one other distinction. This academic paper uses the abstract terms of "resource" or "intrinsic quality." In reality, we are talking about real places and sites and stories that people care deeply about. It is that love of the resource that makes the difference. And it is the National Scenic Byways Program that makes those important connections.

Final Indicator: Growth

When the NSB program began there were only a few states with byway programs; now there are 49. The initial round of national designations in 1996 honored 20 byways; now there are 95. Fifteen years ago, there were only a hundred or so state scenic byways; today there are more than 500. And the byway list grows each year.

Growth is not always a meaningful measure. In our society, however, we often associate growth with success.

CONCLUSIONS

This paper provided an overview of the NSB program and a synthesis of NSB characteristics and made a claim that the diversity of byways contributes to success.

Additionally, there were six central points examined:

1. The NSB program brings important policy attention to the unique and valuable intrinsic qualities of travel corridors and their host communities.
2. NSB policies balance dual considerations of economic tourism and resource stewardship.
3. The largely voluntary and incentive-driven byway organizations serve both policy objectives well.
4. Growth in the number of scenic byways, increased visitor services and amenities, and improved stewardship efforts provide measures of program success.
5. Central features of byways are their diverse intrinsic qualities. Diverse resources attract a diverse set of partners. Diverse partners strengthen byway capacity to protect and promote those resources.
6. Given the interpretations above, it is claimed that a portion of byway success can be credited to its diversity.

It is hoped this modest synthesis will cultivate more awareness and research interest in the byway program. There are likely other important patterns that warrant examination. After a decade of existence, the byway community and its unique policy and program context are beginning to have a definable framework. Research that could capture other important patterns and relationships within that framework would be beneficial.

In the natural world diversity is a contributor to system integrity. Claims about the long-term integrity of the young byway system are premature, but association between diversity and byway strengths and success appears reasonable. The central features of byways are their diverse intrinsic qualities. Diverse resources attract a diverse set of partners. Diverse partners strengthen byway capacity to protect and promote those resources. A diverse resource base also increases the richness of stories. Those treasured and meaningful stories enhance community recognition, pride, and sense of place. The showcasing, interpretation, and celebration of resource stories enrich the visitor experience. The National Scenic Byway program makes important contributions to those valued social and economic outcomes.

ACKNOWLEDGMENTS

The author gratefully acknowledges the support provided by America's Byways Resource Center and FHWA's National Scenic Byways Program and the sabbatical provided by Eastern Washington University.

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Findings and interpretation expressed are the views of the author.

Publication of this paper sponsored by Historic and Archeological Preservation in Transportation Committee.